Networking Guide

now you can see

CV0104DVR
CV0204DVR

1 Introduction & Important Information

Introduction

Congratulations on taking a step forward in protecting your valued possessions. Now that you have your video security system in place, connecting it to the internet will allow you to view what's important to you with ease. You will learn about your product and will see that you can do this on your own. The following is a step by step instruction manual on how to connect your system to the internet. You will be able to view your DVR and even watch previously recorded footage with the touch of a button.

NOTE: *This guide was created using a cable modem and some procedures will be slightly different depending on your hardware.*

Before you start lets make sure that you have everything you need to do this properly. You should have these ready and connected before beginning:

- ❑ DVR connected to a router
- ❑ Router connected to the internet. In order for this DVR system to connect to the internet, it must be connected to a router. If you are using a DSL internet connection the setup process is much easier if you use modem with a router integrated in it as this will help avoid any problems connecting your DVR. Please write down the model # of your router in the important information section.
- ❑ A PC laptop or computer that is connected to the router so you can make the necessary changes. This system is not Mac compatible. Your computer should have the following specifications:
- ❑ **Internet Explorer Version 5 or higher.** If you do not have this program, please go to **www.download.com** and get an updated version. You can check your version of Internet Explorer by opening the program. Go to the top menu selection and in the Help menu options, choose About Internet Explorer. The version will be displayed.
- ❑ A valid and fully updated version of Windows XP (minimum).

Important Information

Please fill in the information you receive during this installation in the areas below:

Model Numbers

Your router manufacturer: _____
Example: D-Link

Your router model #: _____
Example: DI-524

Router IP: _____ Port #: _____
Example: 192.168.1.101 *Example: 80*

External IP: _____
Example: 14.14.243.113

DynDNS Username: _____
Example: myname1234

DynDNS Password: _____
Example: 123ABC

DynDNS Domain Chosen: _____
Example: dyndns.org

Sign-In URL: _____
Example: myname1234.dyndns.org

2 Prepare your computer to view the DVR

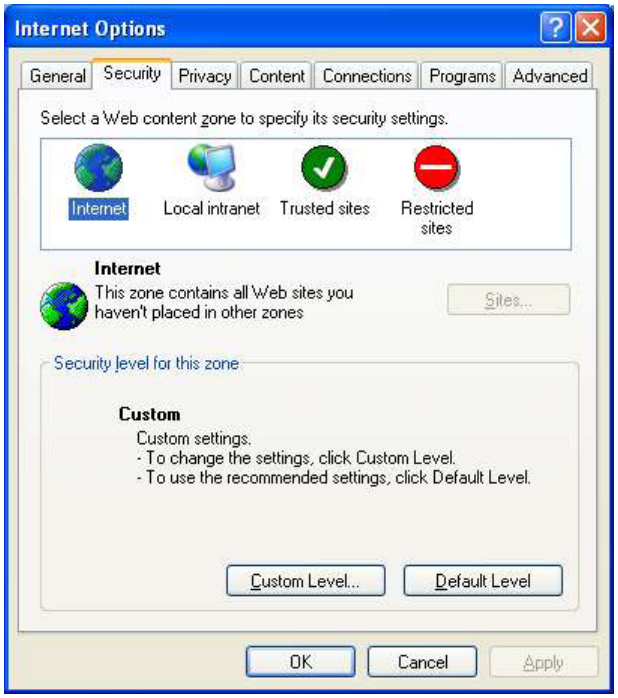
Prepare your Computer

Following these steps will allow your computer to view the video.

Before starting to set-up your network connection, you have to be sure that your computer is able to view the footage from the DVR. If you are running Windows XP, you will most likely have this pre-installed.

NOTE: You will need to do this to any computer that you want to view the footage from.

1. Open Internet Explorer. Go to the drop down menu in the **TOOLS** area and select **INTERNET OPTIONS**. A screen will open.
2. Select the **SECURITY** tab, then click on the **CUSTOM LEVEL** button in this tab.



3. Change the ActiveX settings to the ones seen in the images.

- ❑ Download signed ActiveX controls: **PROMPT**
- ❑ Download unsigned ActiveX controls: **PROMPT**
- ❑ Initialize and script ActiveX controls not marked as safe: **PROMPT**
- ❑ Run ActiveX controls and plug-ins: **ENABLE**
- ❑ Script ActiveX controls marked safe for scripting:ENABLE

NOTE: If you do not have ActiveX installed and the previous step did not download it, go to **www.download.com** and search for ActiveX. Download the ActiveX Download Control.

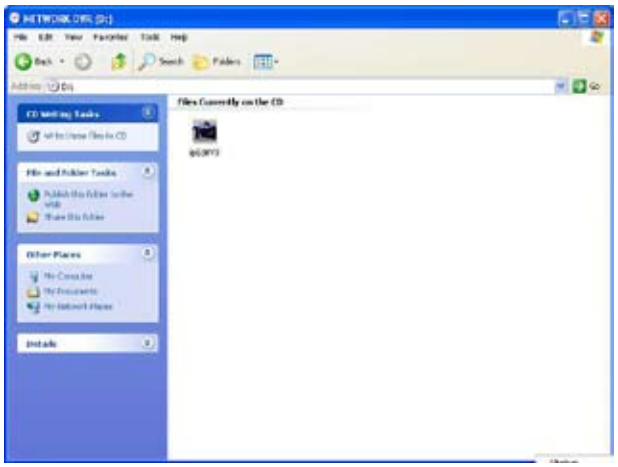
Your computer is now able to view the feed from the DVR.

3 Prepare your DVR to connect to the Internet

Prepare your DVR

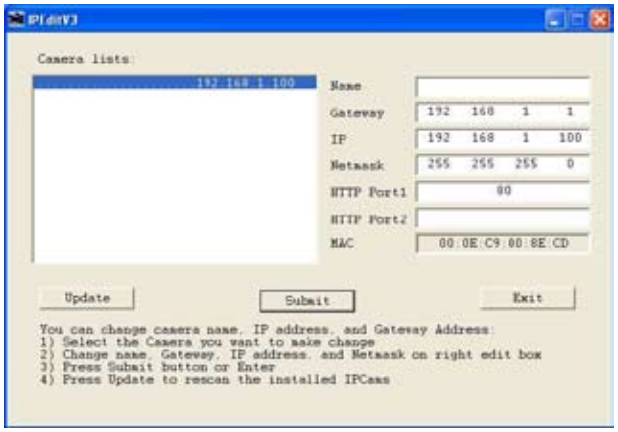
Next we will set up the DVR to connect to the internet and allow you to view online.

1. Place the CD-ROM that was included with the DVR system into your computer's CD-ROM drive. If your computer does not automatically open the CD folder, go to Start/My Computer and double-click on the CD-ROM icon.



2. Drag and drop the IPEDIT.EXE program onto your desktop. This program will give you the information needed to find your DVR's IP address (unique location on your network).

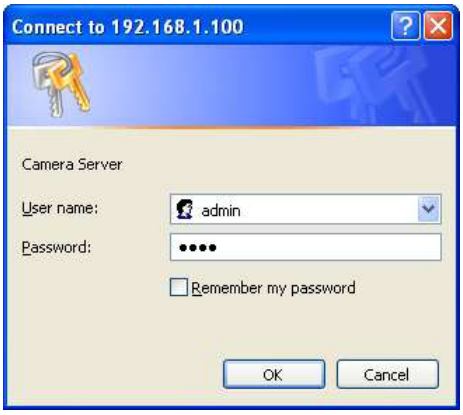
3. **Open IPEDIT.EXE** from your desktop. Depending on your firewall settings, a warning message may appear asking if you want to block or unblock this program. **Click Unblock.**


IPEditV3
Camera lists:
Name
Gateway 192 168 1 1
IP 192 168 1 100
Netmask 255 255 255 0
HTTP Port1 80
HTTP Port2
MAC 00:0E:C9:00:8E:CD
Update
Submit
Exit
You can change camera name, IP address, and Gateway Address:
1) Select the Camera you want to make change
2) Change name, Gateway, IP address, and Netmask on right edit box
3) Press Submit button or Enter
4) Press Update to rescan the installed IPCams

4. **Click on the UPDATE button**. In the top left area of the program window you should see a set of numbers. This is the IP address of your DVR. Write it down in the information area of this manual listed as **ROUTER IP**.

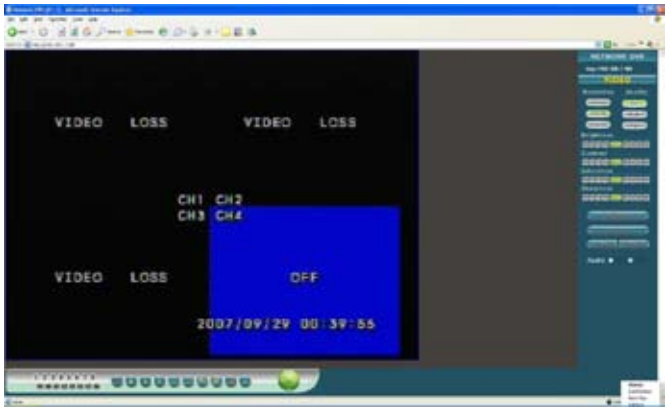
5. **Open up Internet Explorer.** Enter enter the DVR's IP address found in Step 4 into the address bar. *Example: http://192.168.0.100*

6. If entered successfully a window will open up with a login screen. The default **USER** will be **admin**. The default **PASSWORD** will be **1234**.



7. The first time you logon to the DVR, an ActiveX Installation window will appear. Install the ActiveX control.

8. You can now view and control your DVR from inside your network!



You can now view and control your DVR from inside your local network.

4 Port Forwarding on Your Router

Connect to the Internet

Port forwarding is a necessary step that opens a path on your home/business network to allow you to view your DVR video feed from outside your network *(over the internet)*.

There are hundreds of makes and brands of routers on the market and these instructions have been made using a D-Link router (Model DI-524). If you have a router that is different than shown, please visit **www.portforward.com** and go to the link marked **GUIDES**. Once on this page, go to the link marked **Port Forwarding Guides by Router**. Find your router make and model in the list of links and click on it. You will see a list of various applications. Find a link for any DVR or IP camera and click on it. Follow the instructions but make sure you forward the correct port number *(the port number assigned to your DVR)*.

The steps for your router will be similar to the following.

These instructions have also been created without a firewall in place. If you have a firewall, please consult a computer technician.

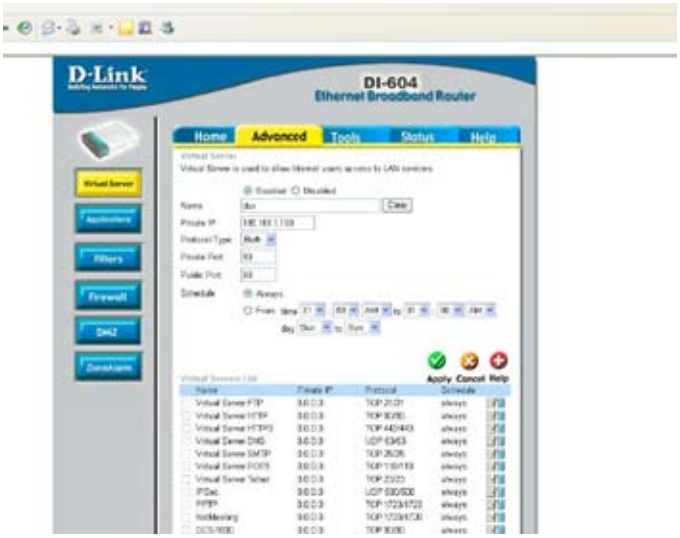
D-LINK ROUTER

You will need to enable the ports by locating the port range forwarding screen. With some D-LINK routers the port forwarding screen is located within the **Applications & Games** or **Filters** tab; in others it is located in the **Advanced Tools** tab.

1. Open your web browser. Enter the **ROUTER IP** address (found on page 2) in the address bar as shown below and press **ENTER**.
2. Enter the user name admin. Leave the password blank followed by pressing the OK button *(unless you have set up a user name and password for your router)*

3. Select the Advanced tab.

4. Select the Virtual Server tab.



- ❑ In the Name field type in "DVR"
- ❑ In the Private IP field enter the DVR's IP address.
- ❑ In the Protocol field, select Both (This will enable both TCP and UDP).
- ❑ In the Private port enter the port number you need to forward. By default this DVR is set to port 80. Use port 80 unless you have a reason to change the DVR to another port (not recommended).
- ❑ In the Public port re-enter the port number you entered in the private port field (e.g. 80).
- ❑ Select the Schedule to Always.

When complete, select the Apply button located at the bottom of the page to save your changes. Port forwarding is now complete!

5 Finding & Testing Your External IP Address

Find Your External IP

Now you will need to find your external IP address. This will be the address you will be entering in order to access the DVR from outside your network (over the internet).

There are many ways to find your external IP address. The simplest way is to go to **http://www.whatsmyip.org**. This site will display your external IP address in the top portion of the screen. Write it down on the first page marked **EXTERNAL IP.**

Test Your External IP

Now that you know your external IP address, you can perform a test to ensure your DVR is accessible from outside your network (over the internet).

1. Open Internet Explorer, and in the address bar type in the EXTERNAL IP address you wrote down on page 2, followed by a colon and your port number (default is port 80). It should similar to the following example: 14.14.243.113:80

3. **Press ENTER, and your DVR's login window should pop up. If it does not pop up, your router is not properly forwarding the necessary port.** This could be due to a number of problems including incorrect settings, presence of a firewall, or a DSL modem that has its own IP address.

   If your DSL modem has its own internal IP address, it will not properly forward the necessary port. You may have to configure PPPoE settings in the router to match the settings provided to you by your Internet Service Provider (ISP). You may also need to configure port forwarding in your DSL modem. Unfortunately many ISPs lock the ability to change settings in your modem. Consult with your ISP for more information. SVAT technical support cannot troubleshoot modems, since changing these settings can potentially render your modem inoperable.

   You should also check all your network connections and go through the above steps again to make sure a configuration error was not made.

6 Dynamic DNS **VERY IMPORTANT**

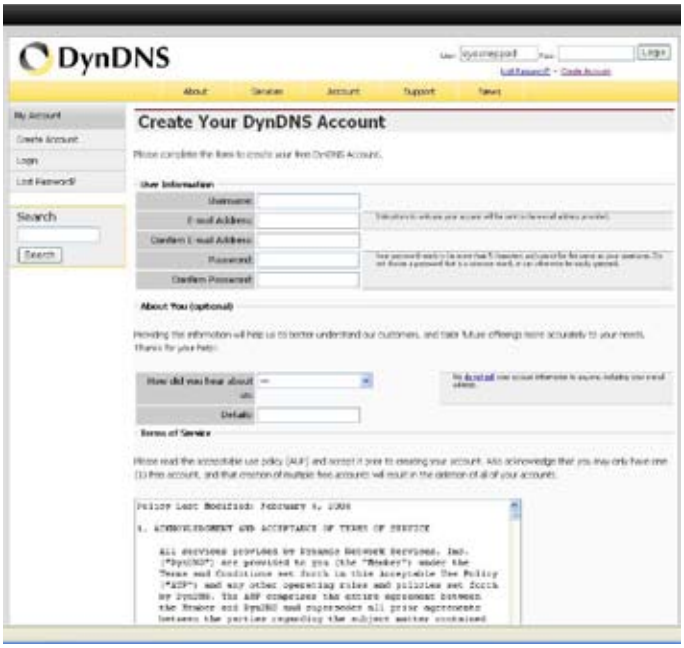
Forwarding Outside your Network.

Port Dynamic DNS

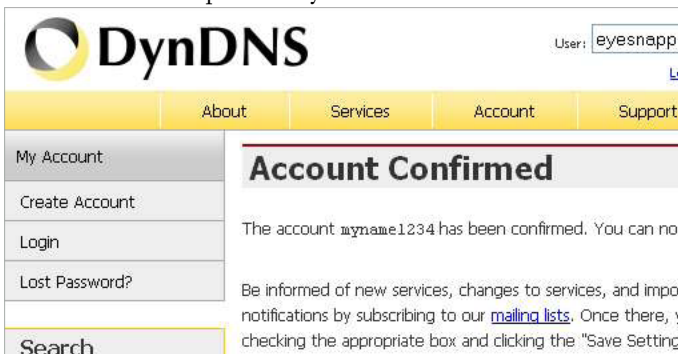
This section will explain how to associate your IP address with an easy-to-remember URL (domain name)

1. Open Internet Explorer and type in **www.dyndns.com**

2. The instructions on creating a dynamic DNS may have changed since the writing of this guide. Create a new account by clicking the link "Create Account"
3. Enter your preferred user name, email address, and password. Enter these on page 2.



4. Do not worry about the optional information. Agree to the Terms of Service by checking the boxes. Click Create Account.
5. Now check your email for the confirmation message. You will need to click the link in the body of this message to activate your account. The message may take up to 24 hours to arrive in your inbox. If you cannot find the message in your inbox, please check your junk/spam mail folder.
6. When you click the link, a window will appear that displays "Account Confirmed." Click on the login link and enter the user name and password you created.



7. Click on the Services button located on the top menu

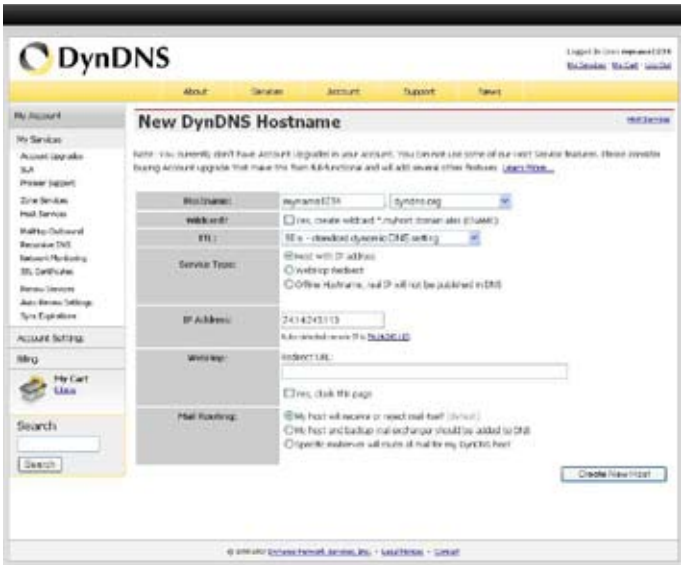
6 Dynamic DNS **VERY IMPORTANT**

Forwarding Outside your Network.

continued...

8. Click on the Dynamic DNS link

9. Click on the Get Started link located on the right menu
10. Type in a host name (subdomain name). We recommend you use your first name or company name.
11. Choose a domain name from the dropdown menu. We recommend using the dvrdns.org suffix.



12. In the IP address field, type in your external IP address (it may also be shown below the field).
13. Leave all the rest of the options as-is, and click Create New Host.
14. Your dynamic DNS settings have been created.

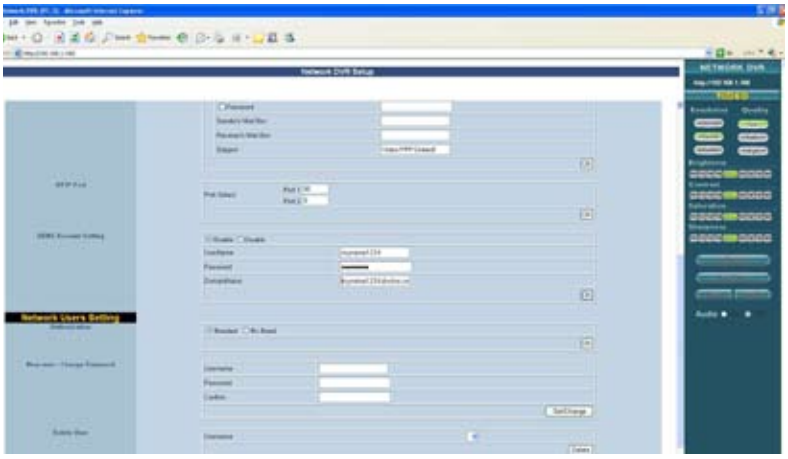
7 Associating Your DVR to the Dynamic DNS Account

Finalizing the Set-up

Now you must associate your DVR with the DynDNS account you just created. This will ensure that when your external IP address changes, your domain name (address in the Internet Explorer Bar) will remain associated with your new IP address. This will ensure that you will only need to type in your domain name in order to access your DVR, whether you are inside or outside of your network:

1. Log-on to your DVR through your computer by using either the internal or external IP address.

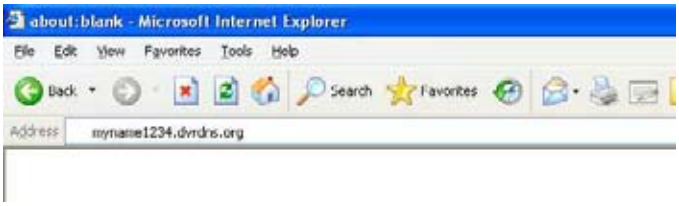
2. Click the CONFIGURATION button.
3. Under the "Network DVR Setup" window, scroll down to "DDNS Account Setting."



4. Make sure the ENABLE button is selected.
5. Enter the username, password, and full domain name you configured at **www.dyndns.com**. Example:

   UserName: myname
   Password: mypassword
   DomainName: myname.dvrdns.org

6. Click the OK button located in this section to save your configuration.
7. You should now be able to access your DVR simply by typing in your domain name (i.e. **myname.dvrdns.org**).


about:blank - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address myname1234.dvrdns.org

Note:

If your router is set to automatically assign an IP address to your DVR (Dynamic/DHCP), your DVR's internal IP address may change if your DVR or router is rebooted. To resolve this problem, you need to configure your router to forward to this new address (simply replace the old private IP address with the new one). To avoid this problem all together, you can set your router to Static LAN IP, which will assign the same IP address to the DVR every time, even when the DVR or router is rebooted.

8 Additional Troubleshooting

I press play and nothing happens

You need to press **STOP** on the DVR first. This DVR can either record or view video footage. It will not do both at the same time. Please make sure that you press **STOP** before proceeding.

My browser keeps freezing

First make sure you have an up to date browser and that the proper ActiveX options are selected. If they are, you may need to **re-install your browser**.

I changed the settings on my DVR and it won't record now

In order to confirm your new settings and to activate them, you must **press record**.

I can't remember my DVR's password

From the live camera view, make sure the DVR is not recording (press STOP). Then press the PAUSE button 5 times. Confirm that you want to reset the DVR to factory defaults. When you restart the DVR your password will be cleared.

I cannot switch to different cameras while playing back footage

Make sure your Record Settings are set to "EACH" recording and not "QUAD" recording. EACH recording will allow you to record individual channels while QUAD recording will only record the cameras in quad screen split mode.

I can't see at night with my IR night vision camera

These cameras are spec'd at 10-15ft in the dark. If you placed these cameras outdoors in the open, the night vision will be reduced as there is nothing to reflect the IR emitted from the camera. To help increase the viewing capabilities add additional lighting to the area.

The color is off on the camera

These cameras have been designed with a high resolution lens which allows you to see crisp clean images. The best lighting for this system is by using incandescent lighting. Other lighting effects will alter the color. You can adjust the color of the cameras in your menu settings. Camera Settings.